TITLE 327 WATER POLLUTION CONTROL BOARD

LSA Document #09-615

SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST PUBLIC HEARING

On May 11, 2011, the Water Pollution Control Board held the first public hearing/board meeting on new rules at 327 IAC 19 concerning confined feeding operations. Comments were made by the following persons:

Barbara Sha Cox (BSC)
Bowden Quinn, Sierra Club, Hoosier Chapter (BQ)
Richard Miller (RM)
Justin Schneider, Indiana Farm Bureau (JS)
Michael Veenhuizen, Livestock Engineered Solution, Inc. (MV)
Brian Shuter, Indiana Beef Council (BS)
David Hardin, Indiana Pork (DH)
Jeff Smiley (JS)
Kristin Whittington, Landmark Enterprises (KW)
Todd Janzen, Indiana Professional Dairy Producers (TJ)
Scott Harmon, EarthWise, Inc. representing Fair Oaks Dairy Farm and Bos Dairy Farms (SH)
Dan McInerny, Bose, McKinney & Evans (DMcI)
Tim Maloney, Hoosier Environmental Council (TM)
Jeffrey Hyman, Conservation Law Center (JH)
Julia Vaughn, Citizens Action Coalition Education Fund (JV)
Livestock and Poultry Rule Revision Group (LPRRG)

Following is a summary of the comments received and IDEM's responses thereto.

Rulemaking Process

Comment: The commentor observed that the number of rule changes made by IDEM in response to comments is unmatched in the history of the Water Pollution Control Board. The rule being presented to the board with these extensive changes was provided to the public for review less than two weeks before the hearing. Both the public and the board need more time to understand the extent of the changes and the reasons for them. IDEM made changes to the rule in response to 60 percent of the comments provided by the livestock industry, while responding to the comments of the public and public interest groups with changes only 23 percent of the time. IDEM should have provided a "track-changes" version of the rule to make it clear what changes were made. Without such a version it will be difficult and time-consuming for members of the public to know what changes were made. We were told that we would have an opportunity to review and discuss the revised rule before it was presented to the board, but this hasn't happened. The board should require the Office of Land Quality to release a track-changes version of the rule and discuss it with stakeholders before voting today to preliminarily adopt the rule. (BQ)

Response: It is IDEM's intent to hear everyone's concerns and address issues as appropriate, and

while it would have been ideal to provide more time prior to the preliminary adoption there is time after preliminary adoption and during the third notice period for interested parties to review and comment formally on the rule. The extensive number of revisions that staff made to the rule over the course of considering all of the comments submitted did not make a "track changes" version possible.

Comment: We are concerned that as the rule moves forward, the laws of inertia come into play and if these requirements remain in the rule as it comes before the board for final adoption, it will be that much more difficult to bring them back to what we consider to be a more reasonable rule. (DMcI)

Response: The rulemaking process with its' third notice provides opportunity to discuss specific concerns and work through changes before final adoption of the rule.

Comment: We believe the rulemaking statutes require a third notice of comment period because of the substantive changes from second notice, and we urge that be done before preliminary adoption. (TM)

Response: IDEM agrees and a third notice will be provided. Please note, however, that by statute the third notice applies to a rule that is preliminarily adopted and cannot be published prior to preliminary adoption.

Annual Reports

Comment: Operators should be required to submit annual reports on manure applications. This requirement would not significantly increase the burden on operators since the Office of the Indiana State Chemist will require submission of the same data. The reason for submitting the report is to make them available to the public, particularly to citizens around the state who monitor water bodies near their homes. By linking the manure application information to their water sampling data, these citizen volunteers will be able to determine whether manure applications raise E. coli or nutrient levels in the waters they sample. Adding this provision will give IDEM tangible information on how well the rule works. This information should be forwarded to IDEM to make it easily available to the public. (BQ) (RM) (TM)

Response: Review of current drafts of the State Chemist proposed rule do not indicate that they will be requiring the submittal of any annual reports. IDEM has adopted land application standards that, when complied with, are considered to provide a high level of assurance that nutrients and other manure constituents are retained in the soil and have negligible losses to runoff. IDEM believes that requiring reports containing manure application records would not assist the state's ability to monitor water quality or to determine if the requirements of the rule are effective. Land application records are reviewed by IDEM inspectors during the farm inspections.

Comment: From a producer's standpoint, requiring CFOs to submit annual reports is an unnecessary additional regulatory burden. (TJ)

Response: Since IDEM has not identified a beneficial use of the information for the agency we are not proposing to require annual reports.

Guidance Documents

Comment: Guidance documents will be needed to explain many of the provisions in this rule: ground water monitoring, manure sampling and analysis, soil sampling, analysis and interpretation, inspection

and record-keeping, and storm water management practices. We are opposed to final adoption of this rule before development of needed guidance. (LPRRG)

Response: A CFO Guidance Manual issued by IDEM already exists for most of these topics and IDEM will be reviewing and revising the document prior to the rules becoming effective. Such revision is difficult until the Rule is final adopted and we know for certain what the requirements will be.

Comment: Concerning guidance documents, if we producers are going to be governed by the rule, we need to know what, in plain English, we're going to be asked to do as far as new requirements and additional requirements that may not have been in the previous CFO rule. (DH)

Response: Staff will be providing information that identifies which requirements are new under the revised rule.

Technical Standards

Comment: While there is value in providing standards that are available and well tested, these standards are routinely updated, while the rule refers to specific versions. IDEM should maintain a repository for the specific document versions specified in the rule. (LPRRG)

Response: IDEM must assemble a complete package for the rulemaking process that will include a copy of each standard referenced in the rule. We will explore the option of providing the free references on an internet site and a link to other sites for references that are copyrighted and must be purchased.

Comment: 327 IAC 19-12. I am concerned about the technical standards and the prescriptive nature of this rule, and that these standards have actually been put in rule language. We are freezing our progress and technology by including them in these rules. These standards should be removed from the rule prior to preliminary adoption. (MV)

Response: IDEM went back and forth between placing specific technical standards in the rule or referencing technical standards that are already published by third parties. Either approach would require a rule change to update the standards. It is IDEM's position that referencing the technical standards is preferred because they often have flexibility within them. In addition, the rule has built into it a section on "Alternate design or compliance approach; innovative technology", that provides a significant amount of flexibility in considering innovative approaches.

Definitions

Comment: The term "waste" appears repeatedly in definitions and other provisions of this rule. We agree that materials not used for land application or other nutrient production are waste materials, but we assert that byproducts of livestock production do have value and are not treated as wastes. This rule restricts the ability to treat manure as waste and requires that it be utilized as a nutrient source or for other beneficial use such as energy production. "Waste" is not an appropriate term. (LPRRG)

Response: The two primary ways in which the term waste is utilized in the rule is in referencing "waste liquids", which is a term that will be deleted from the rule because its meaning has been incorporated into the definition of "manure" by the legislature, and referencing "waste management system". Waste management system is a term that has been in common use under the existing rule and primarily refers to animal waste. We agree that properly applied or treated animal waste does have value however the term waste as used in the rule is primarily viewed from the perspective of the animal

producing it, which has no further use for the excreta.

Comment: The term "manure release" is used but not defined. The term should be defined to ensure that farmers and IDEM interpret it in an identical manner. In 327 IAC 19-13-4, both "manure release" and "spill" are used to identify events that can be interpreted to be the same. Because both terms are used, we assume that they refer to different events. (LPRRG)

Response: The intention was to use the term "manure release" to refer to manure that has escaped from a storage structure or piece of equipment but has not yet reached a water of the state. Once a manure release reaches a water of the state it would be considered to be a "spill".

Comment: 327 IAC 19-2-8 "Contaminated runoff". We are still concerned about the meaning of "contaminated runoff," especially because of information from EPA. Because this rule will be enforced solely by IDEM, we need clarification on how IDEM will interpret this provision for CFOs. (LPRRG)

Response: It is not clear what aspect of the definition needs clarification. Its application is to rain or surface water that comes in contact with the new definition of manure at the production area, including roads leading up to the production area.

Comment: 327 IAC 19-2-23 "Manure". The definition of "manure" is not identical to the definition in House Enrolled Act 1187, effective on July 1, 2011 (IC 13-11-2-126.5). Rather than a complete definition of manure, the definition in the proposed rule refers to the definition of "waste liquid." For clarity, the definition of manure should be identical to HEA 1187 and "waste liquid" should be defined separately. (LPRRG)

Response: The statute has incorporated the items that were considered a "waste liquid" into the definition of "manure" so the term "waste liquid" will be deleted from the rule and the definition of "manure" will be revised to agree with the statute.

Comment: 327 IAC 19-2-29 "Owner/operator". While we appreciate IDEM's response to our earlier comment on this definition, we cannot agree on the meaning of this term and its purpose. This term should be clarified. (LPRRG)

Response: It is not clear from the comment what type of clarification is needed.

Comment: 327 IAC 19-2-40 "Staging". The phrase "at the site where the manure will be land applied" should be clarified. A farmer may find the best practice to be to create one staging area for manure which is to be applied to several fields on different parcels. We believe this definition will not restrict that activity, but the definition should make it clear that activity will be allowed. (LPRRG)

Response: IDEM agrees that the definition would not restrict the activity described. We do not feel the language needs to be changed.

Comment: 327 IAC 19-2-42 "Surface water" and 327 IAC 19-2-47 "Waters". The definition of surface water is broader than permissible under the definition of "waters." "Waters" as defined in statute (IC 13-11-2-265) includes both surface and underground water accumulations, but specifically excludes private ponds, off-stream ponds, reservoirs, and facilities built for reduction or control of pollution or cooling water prior to discharge. "Surface waters" appears to be a subset of "waters" and specifically includes ponds. Including water bodies excluded under IC 13-11-2-265 in the definition of surface water is not legally allowable unless an actual discharge from the exempt feature would cause pollution of a

regulated water, or where separate statutory authority exists. (LPRRG)

Response: This is a long-standing definition, the primary purpose of which was to draw a distinction between surface waters and ground water, especially in relation to setbacks. IDEM has never interpreted the definition of surface waters to extend beyond the statutory definition of waters. However, if a private pond has a hydraulic connection to any water of the state and a discharge into the private pond leads to a discharge to a regulated water, IDEM can certainly enforce against such a violation. We will change the references to "surface water" and "surface waters of the state" to eliminate the confusion.

Performance Standards

Comment: 327 IAC 19-3-1(a). We agree that CFOs should be managed to avoid unpermitted discharges to waters of the state. As long as the rule is followed, unpermitted discharges should seldom occur. While best management can be used on a farm, incidents may occur that are outside the farmer's control, such as natural catastrophes and severe weather. IDEM should use discretion in taking action against farmers for things beyond their control. (LPRRG)

Response: Such considerations are normally made in determining whether an enforcement action will be taken.

Comment: 327 IAC 19-3-1(e). We are concerned with the requirement that manure be staged or applied in a manner to prevent runoff or ponding for more than 24 hours. These may still occur even if the farmer takes all possible actions. The requirement should be amended to state that runoff and ponding should be minimized. (LPRRG)

Response: IDEM will consider making revisions to those requirements.

Comment: 327 IAC 19-3-1(e). This subsection should be clarified with respect to "staged or applied at the CFO." Use of the term "CFO" means the livestock or poultry production area. We believe the term is being used to refer to fields for land application under the control of the CFO owner. The sentence should be revised to read: "staged or applied on land under control of the CFO owner/operator must…" (LPRRG)

Response: IDEM agrees with the interpretation and will make a revision.

Comment: 327 IAC 19-3-1. We agree with the no-discharge standard in this section. (TM)

Response: IDEM agrees.

General Approval Conditions

Comment: 327 IAC 19-4-1(c)(5). This adds a requirement for certification by a registered professional engineer if the commissioner determines it to be necessary. This should not be required as a matter of normal practice. There should be identifiable circumstances that trigger the requirement. Use of a registered professional engineer can greatly increase the cost to the producer without providing additional benefit over that provided by the construction oversight of IDEM personnel. (LPRRG)

Response: This requirement would only apply to special situations that warranted additional protections beyond the norm.

Alternate Design or Compliance Approach: Innovative Technology

Comment: 327 IAC 19-5-1. We support provisions allowing for design or compliance approaches different from those in the rule. We urge the agency to allow for alternative design and compliance approaches that are different than those agency staff is familiar with or which are described in the rule. (LPRRG)

Response: If the alternative can be demonstrated to provide an equivalent level of protection it will be given serious consideration.

Comment: 327 IAC 19-5-1. The way this rule is written, alternative design and compliance will become the norm, not the exception. (MV)

Response: The basis for this comment is not understood.

Existing Confined Feeding Operations

Comment: 327 IAC 19-6-1. We previously indicated concern that it may be difficult for existing operations to make changes before the effective date of the rule. IDEM acknowledged that there would be three months between final adoption of the rule and its effective date. While this may be sufficient for operations to make changes if they receive immediate notice of the new requirements, IDEM should be flexible in working with operations to achieve compliance with the new rules in a cordial and timely manner. (LPRRG)

Response: IDEM has demonstrated flexibility in the past as new rule requirements came into effect and it was acknowledged that understanding the new requirements would take some time.

Application Requirements

Comment: 327 IAC 19-7-1(a). "CFO" should be plural. (LPRRG)

Response: IDEM agrees and will make the change.

Comment: 327 IAC 19-7-1(c)(8). The list of potentially affected parties was developed based on IC 13-18-10-2 and IC 13-15-8. IC 13-18-10-2 refers to the specific notice requirements that the General Assembly created for CFOs. IC 13-15-8 refers to providing notice more generally for permits issued under IC 13-15. The intent of the General Assembly is clear and the group of individuals listed in IC 13-18-10-2 are the only parties who are potentially affected parties. (LPRRG) (TJ)

Response: The Indiana Administrative Orders and Procedures Act (IC 4-21.5) requires IDEM to provide notice of a permit decision to each person who has a substantial and direct proprietary interest in the permit. In order for IDEM to compile that list of interested parties the rule asks that the applicant provide a list of individuals that were provided notice under the requirements of IC 13-15-8 and IC 13-18-10-2. The statute as written requires that both portions of the statute apply to anyone applying for a permit as well as anyone applying for a CFO approval.

Comment: 327 IAC 19-7-1(d). The requirement that expanding CFOs must certify that there is sufficient acreage for land application should reference 327 IAC 19-14-2(c) that allows for a demonstration that less acreage can be used. (LPRRG) (KW)

Response: IDEM agrees and will make a revision to the rule.

Comment: 327 IAC 19-7-1(e). This subsection contains several reasons for which the commissioner may deny an approval application. An application may also be denied under 327 IAC 19-8-4. All

conditions for denial should be listed in 327 IAC 19-8-4 which deals with denials. (LPRRG)

Response: IDEM agrees and will revise the rule language to merge the denial reasons together.

Comment: 327 IAC 19-7-2(b)(4). We oppose the requirement to provide the names of landowners of parcels where manure will be applied. Many parcels are under the control of a farm manager or tenant farmer under a long-term lease. The requirement does not provide environmental protection but does allow opponents of livestock production to easily target those individuals. The maps and field boundary information provide sufficient information for environmental decisions. (LPRRG) (TJ)

Response: It is currently common practice for this information to be provided on maps submitted to the agency for CFOs and it is necessary for IDEM to be able to correlate land use agreements with the acreage being represented as available for land application.

Comment: 327 IAC 19-7-3(b) and (d). Under this subsection the farmstead plan must show the diversion of uncontaminated water. The rule's storm water management requirements require the CFO owner to implement storm water management practices but do not designate which practices must be used. The prescriptive requirement to document diversions is unwarranted. Storm water management issues should be addressed in 327 IAC 19-11. Identifying diversion of uncontaminated storm water on the farmstead plan for a CFO applying for a new permit is a new standard that allows IDEM personnel to understand the specific site that will be constructed and its potential effects on the environment. The storm water management requirements of the rule require the CFO owner to implement storm water management practices but do not designate what types of practices must be used. This documentation requirement is unwarranted and should be removed. All storm water management issues should be addressed under 327 IAC 19-11. (LPRRG) (KW)

Response: This is not a new requirement and has been required in the past under 327 IAC 16-7-9(b). Having this information on the Farmstead Plan helps in the development of storm water management practices.

Comment: 327 IAC 19-7-3(e). This subsection requires the farmstead plan to contain a reference to public roads. In subsection (a) there is a duplicative requirement that all public and private roads within 500 feet of waste management systems be included in the farmstead plan. (LPRRG)

Response: The purpose of this requirement was to provide a reference of where the structures are located relative to any roads in order to better understand the orientation of the facility. This requirement will be replaced with a requirement that true north be indicated on the Farmstead Plan so it may be correlated with the USGS map that already has true north indicated.

Comment: 327 IAC 19-7-3. The residences have been left out, and on a map, I think they should be accounted for. (BSC)

Response: IDEM agrees and will revise the rule language.

Comment: 327 IAC 19-7-5(c). The rule requires that a soil test provide sufficient information on soil fertility to allow for nutrient recommendations for nitrogen, phosphorus, potassium and lime. It does not directly state that a soil nitrogen test should be done and we do not believe it should be interpreted to require such a test since they are largely unreliable in Indiana. We also question the inclusion of potassium and lime in soil testing since levels of potassium and lime needed will not vary widely because of manure application and the rule does not require that certain levels be maintained. (LPRRG)

Response: IDEM agrees and will revise this provision.

Comment: 327 IAC 19-7-3. The manure management plan should be incorporated into the actual permit or approval, and the soil testing requirements should be improved using best practices such as grid soil testing as called for by University Extension Services. We are curious about the change in soil testing from every three years to every four years, without explanation. (TM)

Response: By virtue of the Manure Management Plan being submitted with the approval application it is a part of the approval. Appropriate soil testing approaches vary considerably across the state due to the diverse soil types and distributions that exist. While grid testing may be appropriate in some areas it may not be in other areas. The soil testing frequency was revised to account for the common practice of crop rotation which is typically done on a 4 year cycle.

Comment: 327 IAC 19-7-5(e). The language requiring manure sampling should be amended to state that a single manure sample may be used to represent multiple storage structures so long as the same production system is used for each facility. By using the same production system, the manure will be a consistent product and the nutrient value will be the same in each storage structure. (LPRRG)

Response: IDEM agrees and is revising the language.

Comment: 327 IAC 19-7-6(b)(1)(A). The language should be amended to state that the sites should be constructed and operated to "minimize" rather than "prevent" leachate. The rule should recognize that complete prevention is a difficult standard to achieve. (LPRRG)

Response: IDEM agrees that it is difficult to prevent leachate. The intent of the requirement is to prevent movement of leachate through the base of the structure. The term will be changed from "leachate" to "leaching".

Comment: 327 IAC 19-7-6(b)(1)(B). The rule requires that a compost site be constructed and operated to prevent access by rodents and domestic and wild animals. The concern about removal of carcasses from the compost site is not a water quality issue. This language should be removed because the rules of the Board of Animal Health are similar and are being revised to clarify the requirements for structure security to prevent animal access. (LPRRG) (JS)

Response: Having animal carcasses removed from a contained area and deposited in the open environment can be both a public health and an environmental concern.

Approval Process

Comment: 327 IAC 19-8-2. We agree with the five year length of an approval, but the approval as written will be a period at least 30 days shorter than five years because of the requirement to submit an renewal application at least 30 days before expiration and the provision that the renewal begins on the submittal date. The renewal should begin on the date the previous approval expires. (LPRRG) (JS)

Response: IDEM will modify the language to allow future renewals to be valid for a full five year term.

Comment: 327 IAC 19-8-2(c). A application for renewal includes a showing that the minimum number of acres are available for manure application. This should be amended to allow a showing that a smaller number of acres are needed as provided in 327 IAC 19-14-2(c). (LPRRG)

Response: IDEM will modify the rule to reference all of 327 IAC 19-14-2 which will include the

demonstration of smaller acreage.

Comment: 327 IAC 19-8-4(a)(1). This subdivision should be revised to read "demonstrate that the CFO when constructed will be in compliance with approval conditions contained within this regulation; or…". (LPRRG)

Response: IDEM will revise this section by incorporating 327 IAC 19-7-1(e).

Comment: 327 IAC 19-8-7. The time period for comment on an approval application should be shorter than 33 days. Comments are often upon issues which have no bearing upon whether the approval will be granted for a particular operation The comments are often directed to issues outside of IDEM's scope or issues that should have been challenged during this rulemaking. Livestock and poultry producers should not bear the brunt of delays and costs caused by a lack of understanding about agricultural practices and the regulatory system. The permitting process should not be used to delay approvals. (LPRRG)

Response: It is IDEM's common practice to allow the public at least 30 days to comment on a proposed permit.

Comment: 327 IAC 19-8-7. We recognize IDEM's concern that all required information be given owners and occupants of neighboring land and the county executive using the required form. We believe that applicants should be allowed to use their own letter or form so long as all required information is provided. The applicant is responsible for providing all the information and would not receive the approval if the information is not provided. (LPRRG) (TJ)

Response: IDEM agrees and will revise the rule.

Comment: 327 IAC 19-8-7. Regarding public notice and opportunity for public comment, IDEM mentioned that they are limited by the provisions of IC 13-18-10. We would also like to call your attention to IC 13-15-5 which provides broader latitude for the type of public notice that IDEM provides. The CFO statute only addresses the notice that is provided by the applicant. (TM)

Response: Referencing IC 13-18-10 was not intended to suggest a limitation but rather to identify the specific approach that the legislature has dictated for providing notice for CFOs. IDEM does publish a list of applications that are received on the agency website.

Comment: The rule does not go far enough in terms of giving the public adequate information during the application process. (JV)

Response: IDEM makes the complete application available to the public online by way of the Virtual File Cabinet.

Operating Record

Comment: 327 IAC 19-9-1. The property owner may not have the right to contract for manure application if a tenant farmer has authority for those decisions in a separate contract. It is more appropriate for the land use agreement to be between the livestock or poultry producer and the individual with authority to contract for manure application. If the land is rented, a land use agreement signed by the tenant farmer along with a memorandum of the land lease for crop production should be sufficient. (LPRRG)

Response: IDEM agrees and will revise the rule language.

Ground Water Monitoring

Comment: 327 IAC 19-10-1. The conditions that trigger ground water monitoring are still unclear, and applicants should understand the conditions which may lead to additional requirements. The conditions which are most prevalent, such as specific geologic or design criteria, should be listed in the rule, or the provision should be explained in more detail in a guidance document. (LPRRG)

Response: Because every facility is unique in its design and geologic setting it is difficult to provide very much specificity in the rule. From a historical perspective less than 1% of the currently permitted CFOs and CAFOs have been required to establish ground water monitoring. The situations where monitoring has been required involved large earthen lagoons that were located in permeable soils, or in close proximity to an aquifer formation that was being utilized in the area.

Comment: 327 IAC 19-10-1. The list of ground water monitoring constituents is excessive. If monitoring is necessary, a small subset of the list could be used as indicators to determine if further testing is necessary. The benefit of testing will not outweigh cost of testing to the farmer. (LPRRG) (MV)

Response: The cost to run the parameters listed, on one sample, is approximately $170. The analysis cost for 5 monitoring wells would be less than $1,000. IDEM does not believe such a cost is excessive when it is associated with a situation that warrants the installation of monitoring wells due to concerns with protecting ground water resources.

Comment: 327 IAC 19-10-1. The presence of a listed criteria in a test does not mean that a manure storage structure is the source, and does not necessarily mean that human health or the environment are in jeopardy or that corrective actions need to be taken. (LPRRG)

Response: IDEM agrees with this statement and considers the purpose of the ground water monitoring to be an early warning system that triggers the need for further evaluation to identify the source of contamination.

Comment: 327 IAC 19-10-1. Sufficient data does not exist for farmers to be able to determine whether any changes are statistically significant. Guidance is needed to address this issue. Test results should be submitted to IDEM within 60 days and IDEM should determine if there is a statistically significant increase. (LPRRG)

Response: Determining the most appropriate type of statistical testing is a function of the number of sample points available. IDEM will provide guidance on choosing statistical tests. Results of running the statistical test may dictate the need for re-sampling or additional testing and it is best that the farmer be in control of making those determinations.

Comment: 327 IAC 19-10-1. If the farmer is responsible for determining a statistically significant increase, the results should only be submitted to IDEM if there is a statistically significant increase. If there is not, no information should be submitted to IDEM, including the test results, which should be kept on the farm as part of the operating record. (LPRRG)

Response: IDEM disagrees.

Comment: 327 IAC 19-10. The board should substantially clarify the language of 327 IAC 19-10 to provide specifics regarding: 1) who will need to perform ground water monitoring, 2) how often ground water monitoring will need to be performed, 3) what constitutes a significant increase, and 4) how

compliance can be achieved when there is not sufficient data available to conduct a statistical analysis. The rule language is vague, requires needless data collection, and is functionally impossible to comply with. (SH)

Response: The development of the ground water monitoring plan will address all of these issues and thus provide flexibility in tailoring the requirements to the specific site. IDEM will provide guidance to assist farmers in developing an acceptable monitoring plan.

Comment: 327 IAC 19-10. It is unclear why field pH and field-specific conductance are required for monitoring, since there is no requirement to determine a statistically significant increase for these parameters. The addition of these parameters is overly burdensome for data that is not intended to be used. (SH)

Response: Field pH and field specific conductance are taken in the field to determine when adequate purging of the well has occurred to take a representative sample. Since this information is being gathered for that purpose it is appropriate for it to be provided.

Comment: 327 IAC 19-10. There is no standard to determine when a statistically significant increase may result in a corrective action or what that corrective action might be. (SH)

Response: The ground water monitoring plan will address this issue.

Comment: The rule does not require adequate reporting to help citizens monitor and detect the sources of water contamination in their communities. This rule fails to enhance the ability of citizens to understand and monitor the impact of these operations in their communities. (JV)

Response: Having ground water data from one potential source in a large area does not help to identify the actual source of contamination. Any contamination issue that is encountered requires identifying ground water flow directions and tracing the contamination back to the specific source.

Storm Water Management

Comment: Although this is important and clearly identified in 40 CFR 412, it is not part of 40 CFR 122.23(e) as referenced in this rule. It sets a separate, more restrictive, standard for confined feeding operators, because 40 CFR 122.23(e) is specific to discharges from land application sites and adds storm water exemptions. As written, it would not require CAFOs to follow what I believe is IDEM's intent. This oversight puts an unnecessary burden on CFO operators. (MV)

Response: IDEM agrees that the citation is incomplete and will clarify the provision to reference 40 CFR 122.23(3), which provides that a large unpermitted CAFO may claim an agricultural stormwater exemption for a discharge of manure, litter or process wastewater only when it has been land applied in accordance with site-specific nutrient management practices that ensure appropriate nutrient uptake, as specified at 40 CFR 122.42(e)(1)(vi) through (ix); as well as 40 CFR 122.42 which requires the development of the nutrient management plan and documentation that the plan was followed and the effluent limitations under 40 CFR 412 are met. Note that the requirement of subsection (a) only applies to CFOs defined as CAFOs, not all CFOs. These operations that are defined as CAFOs but do not discharge must meet the requirements under the federal rule in order to ensure that a stormwater-related discharge meets the parameters of the agricultural stormwater exemption in order to not be considered to discharge and thus be required to obtain a NPDES permit.

Comment: 327 IAC 19-11-1. EPA does not refer to "storm water pollution prevention plans" in 40 CFR 122.23. Use of this Indiana-specific term could lead to confusion. The reference to 40 CFR 122.23(e) must include all requirements which could be considered by EPA to include provisions for managing storm water. (LPRRG)

Response: IDEM is amending this section to clarify the references to the federal rules.

Comment: 327 IAC 19-11-2(a)(2). The recommendations for storm water management practices are vague. IDEM should develop guidance to assist farmers in determining which practices are available and what may work best for their operation. The phrase "immediate access roads and rail lines" should be clarified. We suggest restricting the provision to "immediate access roads and rail lines at the CFO." (LPRRG)

Response: IDEM will amend existing guidance to reflect the new rule requirements and give examples of situations and practices that can be adapted for various operations. We also agree with referencing roads and rail lines at the CFO.

Comment: 327 IAC 19-11-3. The storm water management requirements should be used to control real pollution issues such as contamination of storm water by contact with manure from animal handling areas, not to situations like small amounts of spilled grain or feed. (LPRRG)

Response: The rule is written to require consideration of all pollutant sources, even those some may consider insignificant. As the rule is written to apply to all variety of situations, it cannot list each situation that may arise as a possible pollutant concern. Guidance will be amended to provide examples and better explain options for stormwater management for different types of facilities.

Comment: The storm water management requirements are going to be burdensome and very expensive for producers to remain in compliance. Hopefully we can come up with some flexible best management practices that can be used and some guidance to help producers understand what is required within the storm water guidelines in the rule. (BS)

Response: Given that the main requirements for CFOs is to consider possible pollutant sources and maintain good management practices and engage in preventive maintenance to stop problems before they start, it is unclear how much more flexible the requirements of the section could be made. There is ample flexibility written into the rule for each CFO to consider its individual situation and come up with practices more useful for the CFO to manage stormwater runoff.

Comment: 327 IAC 19-11. This provision was substantially changed from the second notice version, and I believe it needs more review and thought. There should be specific reference to best practices guidance concerning storm water management. There is plenty of that guidance available from NRCS, from Purdue, and from IDEM. (TM)

Response: IDEM believes all such guidance would be helpful to CFOs but did not feel that any one guidance should be incorporated into the rule. The rule is written to allow for flexibility in dealing with the site-specific situations at each CFO. IDEM encourages the review of NRCS and other guidance documents such as those published by Purdue when each CFO is considering how to manage stormwater.

Manure Handling and Storage, Site, Design, and Construction Requirements for Waste Management Systems

Comment: The fees for manure application are not sufficient. Taxpayers are subsidizing the time it takes IDEM to supervise them. (BSC)

Response: The fees are set by statute and the board cannot amend them without a statutory change.

Comment: Animal production has health risks related to the large amount of manure produced. The construction standards in the rule would allow a three acre lagoon to leak as much as 1,853,371 gallons of manure into the ground water due to allowed seepage. (BSC)

Response: Seepage into the soil does not equate to contamination of groundwater. In situations where the groundwater may become or has been impacted by a CFO, groundwater monitoring requirements of the rule would be utilized.

Comment: Construction should be certified by registered engineers, and out of state engineers should not be allowed to certify construction. (BSC)

Response: The rule requires that construction be certified by a registered professional engineer who is registered in the State of Indiana.

Comment: 327 IAC 19-12-2. The complete prohibition on construction over mines is unwarranted. The rule should contain a provision for construction over mines that is similar to that for construction in karst terrain. Solid manure structures should be allowed to be constructed over mines. (LPRRG) (JS)

Response: This is a long-standing restriction in the CFO rules. However, the alternate design section of the rule, 327 IAC 19-5-1 would allow innovative design approaches to be considered and possibly approved.

Comment: 327 IAC 19-2-2. Construction of waste management systems in karst terrain or flood plains should be prohibited. Karst terrains are very sensitive systems and based on the language in the rule we are not confident that those could be implemented without creating a serious risk to underground karst waters. (TM)

Response: Construction in karst or floodplains is prohibited except in very limited circumstances where design and construction standards can be demonstrated to the satisfaction of the commissioner to be protective of the environment.

Comment: 327 IAC 19-12-3(b). The 300 foot setback form “surface waters” could be applied to puddles, swales and private ponds with no discharge to waters of the state. The setback should not apply to those features. (LPRRG) (JS)

Response: As this long-standing setback requirement to surface waters has never been interpreted to include puddles, IDEM believes this concern is not warranted. The setback is designed to protect Indiana’s waters, which are already sufficiently defined in rule and statute. See the response to the comment on the definition of “surface waters” in 327 IAC 19-2-42.

Comment: 327 IAC 19-12-3(c). We believe this subsection requires manure storage structures holding solid manure to maintain a 100 foot minimum setback. By using the phrase “contains solids”, the language could be read to mean liquid manure which contains solids. (LPRRG)

Response: IDEM agrees and will modify the language to clarify the intent of the section.

Comment: 327 IAC 19-12-3. We recommend a 1,500 foot setback from public water supply wells or

public water supply surface intakes, and we recommend a minimum setback of 500 feet from surface waters of the state, drainage inlets, sinkholes, and off-site water wells. (TM)

Response: IDEM believes the setback distances proposed are protective of Indiana's waters.

Comment: 327 IAC 19-12-4(d). The requirement to have a professional engineer certify all manure storage facilities is overly burdensome and costly. This provision may be appropriate for a facility that requires a liner, but it is unnecessary for the majority of structures. The design and construction of the majority of facilities are similar or identical, the materials are predictable and the contractors are familiar with the structures. IDEM staff can review each structure before it is placed in service. Since few professional engineers would certify a facility without also designing it, having a professional engineer design the facility becomes a requirement of the rule. (LPRRG)

Response: IDEM believes that a certification of proper construction is essential in assuring that facilities are constructed as designed. IDEM does not have staff to inspect each manure storage facility before it is put into service and requiring facilities to wait for such an on-site inspection would prove more burdensome and costly to owners and operators. Because adherence to design and construction standards is vitally important in the proper operation of a CFO, IDEM believes this requirement is an important method to assure long-term environmental protection.

Comment: 327 IAC 19-12-4(d). I am concerned with the limited role for the professional engineer laid out here, as it puts the professional engineer at risk because they have limited the engineer's role to construction and not the whole process. (MV)

Response: IDEM is attempting to weigh the costs of an engineer's time with the necessity to assure proper construction. As standard NRCS design and construction requirements are incorporated into the rule, IDEM does not believe that a registered professional engineer would be unable to certify that the standards required under these rules have been met.

Comment: 327 IAC 19-12-4(e). We are concerned that TR-9: Circular Concrete Manure Tanks, March 1998, is an outdated technical resource. It should be replaced with "Circular Concrete Tanks Without Prestressing," ISBN 0-89312-125-8, Portland Cement Association, 1993. (LPRRG)

Response: The rule references MWPS-36 for rectangular concrete structures, and TR-9 for circular concrete structures is a companion document that is cross-referenced with MWPS-36. For consistency reasons IDEM believes that the TR-9 is an appropriate reference to use.

Comment: 327 IAC 19-12-4(f). Because not all earthen manure storage structures are lagoons, the phrase "constructed with the intent to treat manure" should be inserted between the words "facilities must". (LPRRG)

Response: The rule language will be changed to clarify that the reference is to lagoons.

Comment: 327 IAC 19-12-4(g). We question the restriction of constructing manure storage facilities that contain solids in sand and gravel soils. Why was this included and what does it mean? (LPRRG) (MV)

Response: This subsection will be clarified to refer to manure storage facilities that contain solid manure.

Comment: 327 IAC 19-12-4(i). NRCS Conservation Practice Standard Code 634: Waste Transfer, October 2010, should be substituted for NRCS Conservation Practice Standard Code 516: Pipeline. The

pipeline publication is for the movement of clean water. (LPRRG)

Response: This reference will be changed.

Comment: 327 IAC 19-12-4(k)(3). The requirement to clean tanks which have been used to store other substances prior to use for manure storage is excessive in some circumstances. If the tank had been previously used to store hazardous substances, traces of the prior substance would need to be removed. However, if the tank previously held a substance similar to manure, such as fertilizer, there is no threat to human health or the environment being created by failing to remove all traces of the substance. This provision should be rewritten to generally require that tanks be cleaned so that hazardous substances are removed prior to addition of manure to the tank. (LPRRG)

Response: IDEM agrees and will amend the subsection to clarify.

Comment: 327 IAC 19-12-4(l). Vegetative infiltration basins should be authorized by this rule. If they are not included in Practice Standard Code 635, a separate technical resource should be referenced. (LPRRG)

Response: Any management system not specifically authorized by incorporated standards may still be used so long as it can be shown to the satisfaction of the commissioner to meet all requisite performance standards and be protective of the environment.

Comment: 327 IAC 19-12-4(o)(3). The requirement for a backup pump is unnecessary as long as the operator has access to a separate pump that can be used if the primary pump fails. (LPRRG)

Response: A backup pump is not specifically required by that subdivision as the wording states these must be provided “if applicable”.

Comment: 327 IAC 19-12-4(o). While we recognize that the outlet of groundwater should not be done in a manner to impact adjacent property owners, the restriction that an outlet must be either twenty or fifty feet from a property line may be excessive if the water can be safely placed into a ditch or creek which is within the setback and will carry the water away. The setback from property lines should not exist if the adjoining property is owned by the owner/operator of the CFO. (LPRRG)

Response: IDEM agrees and will amend that section to allow for waived setbacks if the adjoining property is owned or operated by the CFO.

Comment: 327 IAC 19-12-4(s). We do not believe that the current version of this rule requires that an affidavit announcing completion of construction of the manure management system be notarized. However, we are under the *impression* that the form which IDEM requires does have such a requirement. Why is the use of a notary required in subsection (s)? Legal documents are often submitted under penalty of perjury without the requirement that the document be notarized. There is no value to be gained by seeking the signature of a notary but there is increased cost and time involved in doing so. (LPRRG)

Response: It is a long-standing agency-wide practice requirement to require all affidavits to be notarized. To date IDEM has not received complaints regarding this being an undue burden on the applicant.

Comment: 327 IAC 19-12-5. The rule would read more clearly if the requirement that clay liners be a minimum of one foot thick contained in (c) was instead included in (b). The provision regarding clay

liners should not be treated as an exception to the technical references in (b) but as an additional method of sealing which may be implemented. (LPRRG)

Response: IDEM agrees that the language could be clearer to reflect that a variety of liners many be used to meet the requirements of the section and will amend the section to make it read more clearly.

Comment: 327 IAC 19-13-2. The General Assembly has established a program for regulation of digesters and gasifiers that use agricultural sources of biomass (HEA 1187). Under HEA 1187, digesters and gasifiers using only biomass as the source of energy should no longer be regulated under the solid waste program. Because the digester or gasifier will be part of the manure management system at a CFO, its design, construction and operation will be subject to approval of IDEM under the CFO program. (LPRRG) (JS)

Response: IDEM agrees and will amend the language to bring the rule into agreement with the provisions of HEA 1187 that become effective on July 1 of this year.

Comment: We recommend inclusion of best management practices for reduction of pathogens entering our water supplies, such as those available from Purdue University and the University of Minnesota. (TM)

Response: IDEM continues to investigate the inclusion of any BMPs that will provide better public and environmental protection. IDEM believes at the design, construction and operational requirements of this rule do provide protection for water supplies from nutrients and pathogens.

Emergency Response Plan

Comment: 327 IAC 19-13-4. It is necessary to define "manure release" as it is a new term and has been used to largely replace "spill" when discussing emergency response plans. (LPRRG)

Response: The intention was to use the term "manure release" to refer to manure that has escaped from a storage structure or piece of equipment but has not yet reached a water of the state. Once a manure release reaches a water of the state it would be considered to be a "spill". While the requirements of the existing spill rule would apply to a CFO, a manure release is more reflective of the actual operations at a CFO. The terms are commonly defined and no additional definitional clarification should be necessary.

Land Application of Manure: General

Comment: 327 IAC 19-14-3. IDEM should work with Purdue University with respect to nitrogen recommendations for crop production and reasonable nitrogen losses to ensure that the information being used is based upon current scientific information. By providing better clarity and developing current materials, farmers who are applying manure and the agency staff will be able to interpret this provision in the same manner. (LPRRG) (JS)

Response: IDEM has worked with Purdue and interested producers to develop the land application table currently in the rule. In fact the suggestion for such a table came from commentors, including NRCS and Purdue. There is an allowance for nutrient losses under 327 IAC 19-14-3(b).

Comment: 327 IAC 19-14-3(c). IDEM should use the updated March 2008 version of AWMFH Chapter 4. (LPRRG)

Response: This reference will be updated.

Comment: 327 IAC 19-14-3. The rule does not allow for a demonstration of soil loss below the allowable T when the soil test level is between 200 and 300 ppm in year seven and beyond. By allowing for this showing, farmers can demonstrate that an application of phosphorus will still be protective of the environment. (LPRRG)

Response: Neither the current rule nor the proposed rule allow for site risk considerations in determining the application of phosphorus to a field with high phosphorus levels.

Comment: 327 IAC 19-14-3, Table 2. We also suggest, for the clarity of those following the rule, that the year references in Table 2 be indicated by actual calendar years. As an example, assuming that this rule becomes effective at the end of 2011, the first column for application years would read "2012-2013." This would eliminate the guesswork of which year in the chart is to be followed. (LPRRG)

Response: IDEM will review the chart and make a determination whether adding actual calendar years would be more useful for those using the chart.

Comment: 327 IAC 19-14-4(b)(3). Staging of manure in a flood plain can be protective of human health and the environment so long as certain factors are considered. A landowner should be able to stage manure for a limited period of time in a flood plain if conditions such as weather forecasts, river levels, and recent rainfall for both the application location and upstream watersheds are considered. (LPRRG)

Response: An allowance for short-term staging in a flood plain will be added.

Comment: 327 IAC 19-14-4(c). The restriction in 19-14-4(c) that manure, litter or bedding cannot be placed outside over night is unwarranted. It may take more than one day to clean out a large building, and leaving the material outside over night does not create an environmental risk. Inclement weather is a legitimate concern to which this restriction should be limited. (LPRRG)

Response: IDEM will review the provision and determine whether a specific time-frame, such as a number of hours might be more of a functional restriction. In no case should manure or contaminated materials be placed outside in inclement weather or during the threat of inclement weather.

Comment: 327 IAC 19-14-4(l). The exclusion from enforcement for pollution events caused by storm water or irrigation return flows found in (l) does not match the language found in HEA 1187. Given that the General Assembly has spoken to the issue, we believe that the language should be identical. (LPRRG) (JS)

Response: As HEA 1187 was in its formative stages when this draft of the rule was completed, IDEM intends to amend the rule to make it conform to the requirements of HEA 1187, which becomes effective on July 1 of this year.

Comment: 327 IAC 19-14-5. In the response to previous comments regarding the spray irrigation of manure, IDEM stated that so long as spray irrigation is conducted to prevent excessive application, occasional ponding and slow infiltration should not rise to the level of a violation. We agree with this statement. Nevertheless, we are concerned that an inspector could interpret the regulation in such a way that a livestock or poultry producer could be found to be in violation of this provision even though the ponding is occasional and the infiltration occurring slowly. (LPRRG)

Response: Inspectors will be provided with ample information on the rule requirements that such interpretations should not occur. Additionally, it is not solely the inspector who determines what

purported violations are sent through the enforcement process, therefore the judgment of a single person would not determine such a violation.

Comment: 327 IAC 19-14-5(d)(3). The requirements in (d)(3) are sufficient to protect human health and the environment when spray irrigation is done in a flood plain. Since they take into account the expectation of flooding, there is no reason to determine whether the NRCS soil data mart indicates that there is a low potential for flooding. Trends are less reliable than real time data. (LPRRG)

Response: IDEM believes that the unique nature of floodplains makes it especially important that spray irrigation be done in a manner that assures protection from potential flooding. To that end the NRCS soil data mart is a good tool to aid in that assessment.

Comment: 327 IAC 19-14-6. There are several references made to surface waters of the state in the manure application setbacks. As we previously commented, "surface waters" is an overly broad and somewhat ambiguous regulatory term. (LPRRG)

Response: This is a long-standing definition, the primary purpose of which was to draw a distinction between surface waters and ground water, especially in relation to setbacks. IDEM has never interpreted the definition of surface waters to extend beyond the statutory definition of waters. However, if a private pond has a hydraulic connection to any water of the state and a discharge into the private pond leads to a discharge to a regulated water, IDEM can certainly enforce against such a violation.

Comment: 327 IAC 19-14-7(d). Reference is made to two certifications which must be obtained prior to receiving manure from a CFO. The first is a nutrient application certification and the second are all applicable certifications from the Office of the State Chemist. We are aware of only one certification, the fertilizer material applicator certification from the Office of the State Chemist. The provision needs to be rewritten to clarify that only one certification is required or it needs to more clearly state what the required certifications are and where they may be obtained. (LPRRG)

Response: As written, the rule specifies that any certifications necessary from the OSC must be obtained. If only one certification is necessary then the parameters of the rule are met. The rule serves as a reminder that the office of state chemist regulates the application of fertilizer, including manure, onto the land in Indiana. Anyone applying fertilizer or manure should be aware of the requirements from the OSC and should read those requirements independently from this rule.

Comment: 327 IAC 19-14-7(f). The proposed regulation requires that in order to receive the waiver of land acreage requirements, certain records must be provided including the amount of manure produced, the amount marketed by the facility, and the amount that was land applied. Given that some of the marketing agreements may not be based upon past marketing practices, the provision should be rephrased to state that it includes projected amounts of manure produced, manure marketed, and manure to be land applied. (LPRRG)

Response: IDEM will clarify the waiver conditions.

Comment: 327 IAC 19-14-7(f). There is some question of the scope of the phrase "that was land applied." Is this seeking to obtain information about the amount of manure applied to land under the control of the CFO, or is it seeking to find how much of the marketed manure was land applied? It is possible that marketed manure may not be land applied if it is used in a digester or gasifier. Further,

some manure may be pelletized and enter the market as turf fertilizer. The critical concern is that if the amount of manure land applied and amount marketed are to equal the total produced, the provision must be clear in explaining the land application information which is needed. (LPRRG)

Response: IDEM agrees that the language should be clarified to reflect the amount of manure that was land applied by the CFO or under the control of the CFO. The owner operator is only responsible for meeting the requirements for marketed manure found in the rule. 327 IAC 19-14-2(c) allows additional flexibility.

Comment: 327 IAC 19-14-4(b)(3). Challenges are raised by the strict setback requirements from all waters especially in (b)(3) where there is a prohibition on staging manure in standing water. On nearly level fields in which the water ponds rather than flows away during rain events, it is possible that standing water may accumulate in the area where the manure is staged. That should not be treated as a violation so long as waters of the state are not polluted. (LPRRG)

Response: Generally the topography of land is such that areas where water accumulates are readily apparent. These areas should be avoided when staging manure.

Comment: The rule says that if a waste management system discharges to a water of the state, then that automatically will trigger an NPDES CAFO permit requirement. That same requirement should apply to land application. If there is a discharge to a water of the state from land application, that should also trigger an NPDES CAFO permit requirement. (JH)

Response: Any discharge to a water of the state triggers an investigation of whether a NPDES CAFO permit is required. Runoff that occurs at a land application site caused by a storm event does not trigger the requirement to get an NPDES permit if the land application is done in accordance with these rules. As a point of clarification, any discharge to a water of the state from a waste management system triggers an investigation of whether an NPDES CAFO permit is required. Each case must be reviewed based on the individual circumstances surrounding it.

Application to Frozen or Snow-Covered Ground

Comment: 327 IAC 19-14-4. We are extremely concerned about the restriction on application of manure on frozen and snow covered ground. For many operations that were permitted with less than 180 days storage, application to frozen and snow covered ground is a necessity. While we agree that application may be needed because of natural disasters, extreme weather conditions, or equipment or structural failure, the need to apply because of the size of approved manure storage structures should not be discounted. We acknowledge the provision in (i), which is consistent with the information we have received from EPA, that the restrictions do not apply if injection or same day incorporation can be achieved. However, we do not believe that this provision sufficiently addresses the needs of those operations which were constructed according to the rules in place when they were approved. Those facilities are older facilities where construction of new manure storage structures is not likely an economically feasible venture. Requiring additional storage could result in many of those operations closing, impacting the farmers who raise the livestock and poultry at those farms. (LPRRG)

Response: IDEM agrees that operations with approved storage of 120 days or less may have difficulty meeting the winter-time restrictions in the rule. IDEM will amend the language to allow the commissioner to approve land application on a case-by case basis for those operations not defined as

large CAFOS that have less than 120 days of storage. The approval would be available as long as the farm continues to operate as permitted and does not cause a discharge of manure to waters of the State.

Comment: 327 IAC 19-14-4. A key consideration for our belief that applications to frozen and snow covered ground should not be entirely restricted to emergency situations is the concession that conditions should be in place. We support the conditions listed in (h)(3). Those provisions will ensure that human health and the environment are protected regardless of the reasons for the application to frozen or snow covered ground. Historically, there has not been a problem caused by application to frozen and snow covered ground in Indiana. Those states where incidents have occurred are our neighbors to the north where the soil freezes to extreme depths rather than in the vast majority of Indiana where we have frequent freeze and thaw cycles. With these frequent cycles, the risk that the ground will freeze to substantial depths such that a manure run-off event will occur is minimal at best. Thus, we suggest that CFOs be allowed to apply manure to frozen and snow covered ground so long as they follow the guidelines in (h)(3). (LPRRG)

Response: IDEM believes that sufficient flexibility has been built into the rule to allow operations to plan around the restrictions on winter-time spreading. An emergency provision as well as a case by case approval for operations with approved storage capacity of 120 days or less has been added to the draft rules to aid operations having difficulty meeting the requirements of the rule.

Comment: 327 IAC 19-14-4. Allowance should be made for grandfathering of those facilities which were constructed under previous versions of the rule and who do not have adequate storage capacity to ensure that they can make it through the winter without some application to frozen and snow covered ground. Facilities with adequate available storage would still be subject to the emergency application provisions, but those facilities who cannot get through the winter because of their storage capacity would be allowed to make minimal applications to maintain adequate storage capacity. (LPRRG)

Response: IDEM agrees that operations with approved storage of 120 days or less may have difficulty meeting the winter-time restrictions in the rule. IDEM will amend the language to allow the commissioner to temporarily approve land application on a case-by case basis for those operations not defined as large CAFOS that have less than 120 days of storage. The approval would be available as long as the farm continues to operate as permitted and does not cause a discharge of manure to waters of the State.

Comment: 327 IAC 19-14-4. If this section is not changed, we urge IDEM as well the Governor and other agencies to provide financial assistance to the farmers who are forced to build additional storage. Without the financial assistance, there will likely be a financial hardship which they will not be able to overcome. (LPRRG)

Response: IDEM will revise the requirements as described in the previous comment.

Comment: 327 IAC 19-14-4(e). In (e), there is a general prohibition on large CAFOs from the application of manure to frozen and snow covered ground. The CAFO NPDES rule at the federal level does not specifically prohibit application by large CAFOs. Rather, guidance which has been issued by the EPA states that application to frozen and snow covered ground is prohibited. Additionally, the guidance states that applications will be allowed on an emergency basis, although an individual will be found to be in violation of their NPDES approval. We do not agree with the interpretation of EPA that every

application to frozen and snow covered ground automatically results in a discharge to waters of the US. Thus, we believe that the interpretation of EPA is inappropriate and legally challengeable. That being said, we believe that the provision found in (i) which states that the restriction on application to frozen and snow covered ground does not apply if injection or same day incorporation can be achieved should also apply to large CAFOs. This is consistent with information we have received from staff at Region 5 EPA. (LPRRG)

Response: IDEM cannot speak to EPA interpretations of federal rules. This requirement merely repeats what the federal rule states. CFOs defined as large CAFOs under the federal rule that have a discharge from such an application may be required to obtain a NPDES permit. IDEM will add a clarification that the restriction on application to snow covered or frozen ground does not apply if the manure can be injected or incorporated the same day.

Comment: 327 IAC 19-14-4(e) through (h). The board should modify the language of 327 IAC 19-14-4(e) through (h) to allow the application of manure onto frozen or snow-covered ground at all farms regardless of size, when constructed in accordance with a management plan that includes a field based suitability and risk assessment. This prohibition treats large and small farms unequally and limits operational flexibility. Risk based application to frozen ground is appropriate. (SH)

Response: This rule attempts to take into consideration the differing storage requirements inherent in the evolution of the regulatory program. CFOs that meet the definition of CAFO under the federal rules but do not maintain a NPDES permit have certain requirements they must meet in order to not have to maintain the NPDES permit. Thus there are differing requirements based on size.

Comment: About 85% of currently permitted facilities were originally built when 90 or 120 day storage requirements were in place. It can be very difficult to make it through the season without some sort of controlled application to frozen or snow-covered ground. Injection and same day incorporation may not be feasible for some smaller operations. Hopefully we can find ways to be flexible with producers that, under controlled conditions, we can do some application to frozen ground. (BS) (JS) (KW)

Response: IDEM agrees that operations with approved storage of 120 days or less may have difficulty meeting the winter-time restrictions in the rule. IDEM will amend the language to allow the commissioner to approve land application on a case-by case basis for those operations not defined as large CAFOS that have less than 120 days of storage. The approval would be available as long as the farm continues to operate as permitted and does not cause a discharge of manure to waters of the State.

Comment: How will frozen ground be defined in the guidelines? (JS)

Response: IDEM will be reviewing guidance to update it and provide real-life examples of such concepts. In the absence of that, it is really more of a performance standard than a specific definition. If the ground is too hard to allow for incorporation or allow liquids to seep into the soil, it is likely frozen.

Phosphorus Based Manure Application Limits

Comment: 327 IAC 19-14-3. We are concerned that large CAFOs who currently have CFO approvals not be required to apply *manure* according to Table 1 but that they be given the opportunity to follow the phase-in approach provided in Table 2. This group of CAFOs does not currently have to apply manure with phosphorus as a limiting nutrient, and we believe that a phase-in period will allow them

the opportunity to transition into this more stringent requirement. (LPRRG) (KW)

Response: CAFOs built after 2003 are already subject to phosphorus limitations through their CAFO permit. IDEM estimates that there are approximately 150 such farms. The remaining approximately 450 farms have not been subject to a phosphorus limitation and IDEM agrees with allowing those farms to phase into the phosphorous limitations in Table 2. The rule will be revised to reflect this change.

Comment: 327 IAC 19-14-3. We are concerned because the rule does not specifically acknowledge the necessity and viability of applying multiple years' worth of phosphorus in one application. It is clear based upon the table in the rule that when the soil test levels are 50 ppm or below, there is no restriction. Outside of that initial level, there is no reason why multiple years' worth of phosphorus could not be applied in a manner that is protective of the environment. Given the nutrient content of manure, nitrogen will generally limit the amount of phosphorus to the amount needed over a period of three to four years. Once an application is made, subsequent applications could be restricted until the phosphorus which has been applied is utilized. Without this allowance, it will not be economically viable to apply manure. Nitrogen rates would be so low that subsequent applications of nitrogen would have to be made to the same field, taking away the ability to meet annual nitrogen demands with one application which increases cost of production, compaction, and disturbance to the soil. (LPRRG) (KW)(DH)

Response: IDEM acknowledges that banking of phosphorus has some environmental benefits as the manure may be spread on a fourth of the land area required if banking were not allowed. Therefore reducing air emissions from application equipment and reducing the surface area subject to runoff during rain events. In light of these benefits IDEM is open to additional consideration for allowance of some banking under the rule. Documentation in on-site records, additional soil testing or restrictions of banking to fields that meet a specific risk assessment are all considerations that may accompany an allowance for banking. There is an allowance for nutrient losses under 327 IAC 19-14-3(b).

Comment: 327 IAC 19-14-3. The board should remove or substantially modify the language of 327 IAC 19-14-3. The Indiana State Chemist is authorized under IC 15-16-2-44 to regulate phosphorus application. The environmental benefit of this rule is speculative, and the nitrogen based application rate provides sufficient environmental protection. This standard puts Indiana farms and large farms at a competitive disadvantage. No specific regulatory authority exists to regulate phosphorus application. Regulating phosphorus is redundant since the State Chemist is the appropriate regulatory body. This rule will double the necessary land base for manure application and cost the diary industry $241,000. (SH)

Response: Phosphorus is a nutrient that causes water quality problems when it is discharged into waters of the state. IDEM has specific authority to regulate the discharge of pollutants into waters of the state as well as regulating the operations of CFOS, including regulation of manure application. The office of state chemist regulates land application of all fertilizer, including manure. IDEM has worked with the OSC to assure that regulations are in concert and provide a level playing field for the application of manure as a nutrient as well as chemical fertilizer. IDEM is however open to further discussion and revisions to the rule relative to banking of phosphorus and application of the phase in requirements.

Comment: 327 IAC 19-14-3. The proposed phosphorus rule does not comply with IC 13-18-10-4

because it does not actually assist in reducing the potential for manure to be conveyed off-site by runoff or soil erosion. The limits are too strict to accomplish that, and the current nitrogen standard is sufficient to protect from potential runoff and erosion. IDEM is not mandated to impose these standards and surrounding states do not impose them. The phosphorus standard puts Indiana producers at a competitive disadvantage. (DMcI)

Response: IDEM disagrees. Currently all federally regulated CAFOs are required to land apply manure at a phosphorus limiting rate. The current rule does comply with IC 13-18-10. IDEM is open to revisions to the phosphorus application rates in the rule.

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